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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re application of: Scott et al.

Attorney Docket No.: STFUP076/S00-131

Application No.: 09/904,600

Examiner: Jung, William C.

Filed: July 12, 2001

Group: 3737

Title: ELECTRODE PROBE COIL FOR MRI

Confirmation No.: 2591

**CERTIFICATE OF MAILING**

I hereby certify that this correspondence is being deposited with the U.S. Postal Service with sufficient postage as first-class mail on January 23, 2006 in an envelope addressed to the Commissioner for Patents, P.O. Box 1450 Alexandria, VA 22313-1450.

Signed: \_\_\_\_\_

  
Laura M. Dean

**NOTICE OF APPEAL**

Commissioner of Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Applicant hereby appeals to the Board of Appeals from the decision of the Primary Examiner mailed December 30, 2005 finally rejecting Claims 1-18.

The item(s) checked below are appropriate:

Appeal Fee: ☒ \$250.00 (Small Entity) ☐ \$500.00 (Large Entity)

The proceedings herein are for a patent application and the provisions of 37 CFR 1.136 apply:

☐ Applicant petitions for an extension of time under 37 CFR 1.136 (fees: 37 CFR

1.17(a)-(d)) for the total number of months checked below:

01/26/2006 RFEKADU1 00000043 09904600

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250.00 DP

	<u>Months</u>	<u>Large Entity</u>	<u>Small Entity</u>
<input type="checkbox"/>	one	\$120.00	\$ 60.00
<input type="checkbox"/>	two	\$450.00	\$225.00
<input type="checkbox"/>	three	\$1,020.00	\$510.00

If an additional extension of time is required, please consider this a petition therefor.

☐ An extension for \_\_\_\_\_ month(s) has already been secured and the fee paid therefor of \$ \_\_\_\_\_ is deducted from the total fee due for the total months of extension now requested.

☒ Applicant believes that no extension of time is required. However, this conditional petition is being made to provide for the possibility that applicant has inadvertently overlooked the need for a petition and fee for extension of time.

Total Fee Due

Notice of Appeal Fee \$250.00  
Extension Fee (if any) \$

Total Fee Due \$250.00

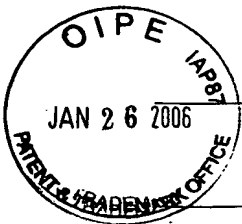
☒ Enclosed is Check No. 29150 in the amount of \$250.00.

☒ Charge any additional fees or credit any overpayment to Deposit Account No. 500388, (Order No. STFUP076).

Respectfully submitted,  
BEYER WEAVER & THOMAS, LLP

  
Henry K. Woodward  
Reg. No. 22,672

P.O. Box 70250  
Oakland, CA 94612-0250  
(650) 961-8300



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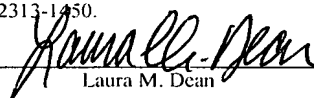
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Signed: \_\_\_\_\_

  
Laura M. Dean

**PRE-APPEAL BRIEF REQUEST FOR REVIEW**

Mail Stop AF  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

Applicant hereby requests review of the rejections in the above-identified application. This request is being filed with a Notice of Appeal. Review is requested for the reasons stated in the accompanying remarks.

**STATUS OF CLAIMS**

Apparatus (probe) claims 1-12 and method of imaging claims 13 and 15-18 are in the application.

Claims 1-7, 9-13 and 15-17 have been finally rejected as anticipated by Glowinski et al. U.S. Patent No. 5,868,674. Dependent claims 8, 11, and 18 have been finally rejected as unpatentable over Glowinski et al. and further in view of Nowenski et al. U.S. Patent No. 6,701,173.

**CLAIMED SUBJECT MATTER**

The claimed invention is directed to a probe for detecting magnetic resonance signals from a region of interest including a conducting medium (e.g. tissue or fluid) and to a method of imaging the region of interest by detecting magnetic resonance signals with the probe.

More particularly, the claimed probe includes at least first and second electrodes, positionable in the region of interest with distal ends of the electrodes being spaced apart and disconnected and functioning with the conducting medium (e.g. tissue or fluid) as a coil for detecting magnetic resonance signals.

Fig. 5 of the drawings illustrates one embodiment where the electrodes 10, 12 are placed under the patella (knee cap) for imaging a defect in the patellar cartilage. See paragraph [22] of the specification. The probe and method of imaging a region of interest using the probe allow greater signal to noise ratio in detected signals within an object being imaged as compared to the use of a conventional surface coil. See paragraph [23] of the specification.

**CLAIMED INVENTION IS NOT ANTICIPATED BY GLOWINSKI ET AL OR  
OBVIOUS FROM GLOWINSKI ET AL. TAKEN WITH NOWENSKI ET AL.**

Glowinski et al. disclose a MRI system including an interventional device or catheter for generating an additional magnetic field (column 1, lines 11-16, 46-65) with the additional magnetic field adjusting contrast in imaging.

The Examiner incorrectly alleges that the interventional device has a conducting loop for detecting MR signals (see Office Actions dated 08/25/05 and 12/30/05). However, Glowinski et al. note that a receiver coil 8 serves to receives the MR signal (Column 4, line 30-33).

The conducting loop of the interventional device is connected to a catheter power supply unit 17 (Column 4, line 49-51). Current through the conducting loop creates the additional magnetic field which can be adjusted by the adjustment of the current through the conductor loop 16 by means of a variable resistor 18 and a first switch 22 (Column 5, lines 6-11).

Clearly, the Glowinski et al. catheter is not a signal detector, and a conductor loop cannot have spaced apart and disconnected ends, as claimed, since generation of the additional magnetic field in Glowinski et al. requires a completed circuit connected to the power supply 17.

Clearly, Glowinski et al. are not practicing a method of imaging where magnetic resonance signals are detected with at least two spaced electrodes in proximity to a region of interest, distal ends of the electrodes being spaced apart and disconnected.

Nor are the probe of claims 1-12 and the method of claims 13 and 14-18 obvious from Glowinski et al. taken with Nowinski et al. since Glowinski et al. are not concerned with detecting MR signals with their catheter, but rather with generating an additional magnetic field by passing a current through the conductor loop of their catheter.

Nowinski et al. is cited merely to show retractable electrodes that extend from a catheter, albeit not for an MR system, as specifically noted by the Examiner in the 12/30/05 final rejection. Nowinski et al. are combined with Glowinski et al. in rejected dependent claims 8, 11, and 18, and these claims are respectfully believed to be patentable along with the claims from which they depend.

Reversal of the final rejection of claims 1-13 and 15-18 on Glowinski et al., alone or taken with Nowinski et al. is respectfully requested.

Respectfully submitted,  
BEYER WEAVER & THOMAS, LLP

A handwritten signature in black ink, reading "Henry K. Woodward". The signature is fluid and cursive, with the first name "Henry" and last name "Woodward" clearly legible.

Henry K. Woodward  
Reg. No. 22,672

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